UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,770	12/21/2004	Tomoki Ushida	122198	4828

25944 7590 11/05/2007

OLIFF & BERRIDGE, PLC
P.O. BOX 320850
ALEXANDRIA, VA 22320-4850

EXAMINER	
HEYI, HENOK G	

ART UNIT	PAPER NUMBER
2627	

MAIL DATE	DELIVERY MODE
11/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/518,770	USHIDA ET AL.	
	Examiner	Art Unit	
	Henok G. Heyi	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5-14* is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on *21 December 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it is presented in two paragraphs when it should have been written in a single paragraph. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Hisada et al. US 6, 743,527 B2 (Hisada hereinafter).

Regarding claim 1, Hisada teaches an optical recording medium (Figs. 1B, 2B, 3B, 4B, 5A) comprising: a disc-like shaped substrate (11, 51) including a center hole (A) formed therein and an information recording face (SA) at least on one side of the first substrate (11, 51); and a light transmitting layer (transparent substrate12), formed on the information recording face so as to be thinner than the substrate 11, the light transmitting layer including a center hole (B) at a larger inner diameter (dB) than that of the center hole (dA center hole diameter) formed in the first substrate.

Regarding claim 2, Hisada further teaches an annular protrusion (22) projecting in a thickness direction is formed around the center hole (B) in substrate 12 and the center hole (B) having a larger inner diameter than an outer diameter of the annular protrusion is formed in the light transmitting layer (figure 4B, col.14, lines 4-15 which states that substrate 51 may be in place of first substrate 11. See also col. 6, in the brief description of the substrate 51 that is being used in the optical disk of Hisada's invention).

Regarding claims 3-4, that the term approximately equal to Hisada further teaches the amount of projection of the annular protrusion is approximately equal to or larger than to a thickness of the light-transmitting layer (Figs. 2B, 3B show the projection extends about thickness of the light transmitting layer 12 and also on col 9 line 36 Hisada discloses that the height of the convex portion 22 preferably is larger than the sum of thickness of the second substrate 12 and the radiation curable resin 13). Regarding claim 2, the annular protrusion is said to be approximately equal to the thickness of the light-transmitting layer. Since the term "approximately" is a relative term, even though the protrusion as shown by Hisada is seen to "approximately equal" to the thickness of the light-transmitting layer.

Allowable Subject Matter

4. The following is a statement of reasons for the indication of allowable subject matter:

5. The prior art of record considered alone or in combination failed to teach or suggest:

Regarding claim 5, a method for manufacturing an optical recording medium, comprising the combination of steps of:

molding a disc-like shaped substrate including an information recording face at least on one side;

a light transmitting layer formation step of forming a light transmitting layer thinner than the

substrate on the information recording face; a cutting step of forming a circular cut in the light transmitting layer; and a punching step of punching out at least a part of an area inside the cut by a punching tool to form center holes in the light transmitting layer and the substrate.

Regarding claim 14, a manufacturing device of an optical recording medium, comprising: cutting device for forming a circular cut in alight transmitting layer of a semi finished product of an optical recording medium including a disc-like shaped substrate having an information recording face at least on one side and the light transmitting layer thinner than the substrate on the information recording face; and punching device for punching out at least a part of an area inside the cut by a punching tool to form center holes in the light transmitting layer and the substrate.

Regarding claim 5, Hisada teaches a method for manufacturing an optical recording medium, comprising: a molding step of molding a disc-like shaped substrate including an information recording face at least on one side (the signal area SA of the first substrate 11 can be obtained, for example, by molding resin by injection molding, col 11 line 1-5); a light transmitting layer formation step of forming a light transmitting layer thinner than the substrate on the information recording face (the second substrate 12 is thinner than the first substrate 11 and transparent , col 8 line 8) but fails to teach a cutting step of forming a circular cut in the light transmitting layer; and a punching step of punching out at least a part of an area inside the cut by a punching tool to form center holes in the light transmitting layer and the substrate. Nakajima discloses that a punch is used to make a center hole in the substrate of disc (and the center through hole 5 is formed therein by moving the punch 18 in a direction of an arrow "a" through the disc substrate 2, col 2 line 14). The combined teaching of Hisada and Nakajima still fail to meet the cutting step used in the manufacturing process.

Regarding claim 14, Hisada teaches an optical recording medium including a disc-like shaped substrate (a first substrate 11, col 7 line 46) having an information recording face at least on one side (the first substrate 11 has a signal area SA on a principal plane 11a, col 7 line 52) and the light transmitting layer thinner than the substrate on the information recording face (the second substrate 12 is thinner than the first substrate 11 and transparent, col 8 line 8). However, Hisada fails to teach a manufacturing device of an optical recording medium, comprising: cutting device for forming a circular cut in a light transmitting layer of a semi finished product of an optical recording medium and punching device for punching out at least a part of an area inside the cut by a punching tool to form center holes in the light transmitting layer and the substrate. The second reference, Nakajima, teaches about a punching device (punch 18 col 2 line 14) but doesn't teach a cutting device.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henok G. Heyi whose telephone number is (571) 270-1816. The examiner can normally be reached on Monday to Friday 8:30 to 6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HGH
Patent Examiner
Art Unit 2627
10/18/07

HOA T. NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600
11/2/07